Page

Survival of patients with cancer of the large intestine and rectum, Connecticut, 1935–54. Fred Ederer, Sidney J. Cutler, Henry Eisenberg, and John R. Keogh 489

Occurrence of visceral lymphomatosis in chickens inoculated with Rous sarcoma virus. B. R. Burmester and W. G. Walter 511

A simple method for the preparation of potent chicken anti-Rous sarcoma virus serum. Mary Alexander Fink and Frank J. Rauscher 519

Announcement:

Manuscripts Approved for JNCI, December 15, 1960 to January 15, 1961 .. 523

No. 3—MARCH 1961

Studies of properties of the liver mitotic stimulant (LMS) in mouse tumor tissue. Richard A. Malmgren and Willie Mills 525

Antigenicity of pooled human malignant and normal tissues by cytoimmunological technique. III. Distribution of tumor antigen. Bertil Björklund, Viveka Björklund and Ingegerd Hedlöf 533

The antigens of human leukocytes. I. Introduction. Leonhard Korngold, Gerda van Leeuwen, and Daniel G. Miller 547

The antigens of human leukocytes. II. The specificity of leukocyte antigens. Leonhard Korngold, Gerda van Leeuwen, and Daniel G. Miller .. 557

Homologous and heterologous skin transplantation in patients with lymphomatous disease. Daniel G. Miller, Jesus G. Lizardo, and Reuven K. Snyderman 569

Cytotoxicity of heterologous immune chicken serum to normal and neoplastic mouse tissues in culture. Peter Abramoff, John W. Saunders, Jr., and Mary T. Gasseling 585

Effect of cortisone on growth, DNA, RNA, and protein of spontaneous and transplanted mammary tumors in mice. A. F. Burton and R. W. Begg 601

Effects in newborn mice of tumor-producing agents carried in tissue culture. S. Neriishi, Y. Yabe, N. Oda, N. Ida, F. Gonzales, W. Sutow, A. Kirschbaum, H. G. Taylor, and J. J. Trentin 611

Distribution of hemagglutination-inhibiting antibodies against polyoma virus in laboratory mice. Y. Yabe, S. Neriishi, Y. Sato, A. Liebelt, H. G. Taylor, and J. J. Trentin 621

Regression of grafted bone marrow in homologous irradiated mouse chimeras. Raymond A. Popp 629

Immunogenetic studies of a histocompatibility hemagglutinogen (R-1) in the rat. Arthur E. Bogden and Paul M. Aptekman 641

Induction of tumors in newborn mice with dibenz[*a*,*h*]anthracene and 3-methylcholanthrene. Margaret G. Kelly and Roger W. O'Gara 651

Cytotoxic action *in vitro* of human serum on the metabolism of mouse ascites tumor cells and counteraction by endotoxic and other polysaccharides. Berigoj Stambuk and Dean Burk 681

Chinese-hamster cell strains *in vitro*: Spontaneous chromosome changes and latent polyoma-virus infection. Denys K. Ford, Christina Boguszewski, and Nelly Auersperg 691

Chromosomal studies on diethystilbestrol-induced testicular tumors in mice. K. E. Hellström 707

Tumors of the central nervous system of rats: With report of two tumors of the spinal cord and comments on posterior paralysis. J. R. M. Innes and G. Borner 719

Tumor induction by genetically homogeneous lines of polyoma virus. Ernest Winocour and Leo Sachs 737

Rabbit heart cell culture, strain RHF-1. I. Growth, cytology, histology, and susceptibility to some inclusion-inducing viruses. Newton Khoobyarian and Catherine Gardella Palmer 755

Page

Dissemination of Rous sarcoma virus as a cause of "metastases." J. SPENCER MUNROE and CHESTER M. SOUTHAM 775
Announcements:
Symposium on Host-Tumor Interactions 784
Manuscripts Approved for JNCI, January 15 to February 15, 1961 784

No. 4—APRIL 1961

Tribute to Dr. Jerome T. Syverton II
Editorial history of the Journal of the National Cancer Institute. DORIS M. CHANEY and MARIE K. MURPHY 785
Proliferation of mammalian cells in ion-controlled environments. JOHN L. WORDEN 801
Strain differences in growth of mouse mammary tumors. FRANCESCO SQUARTINI 813
Tumorigenesis in transplanted irradiated and nonirradiated ovaries. W. U. GARDNER 829
Induction with carbon tetrachloride of liver-cell carcinomas in hamsters. GIUSEPPE DELLA PORTA, BENEDETTO TERRACINI, and PHILIPPE SHUBIK 855
Modification of charactertistics of an *in vitro* mouse cell line after an increase of its tumor-producing capacity. G. BARSKI, J. L. BIEDLER, and FR. CORNEFERT 865
A transplantable bile-secreting hepatocellular carcinoma in the rat. MELVIN D. REUBER 891
Effect of foster nursing on morphology of lymphatic tissue of mice. S. ALBERT and EILEEN PODOLAK 901
Electron microscopy of tissue of the mammary glands and tumors in old mice with special reference to mitochondrial size. J. C. H. DE MAN and TH. G. VAN RIJSSEL 919
A contagious tumor of the hamster. DARLENE C. BRINDLEY and WILLIAM G. BANFIELD 949
Liver enzymes during hepatic carcinogenesis. EBERHARD G. TRAMS, JOSEPH K. INSCOE, and ROBERT A. RESNIK 959
Influence of the A^y gene on mammary-gland tumors, hepatomas, and normal growth in mice. W. E. HESTON and GEORGE VLAHAKIS 969
Mechanism of experimental tumorigenesis. VIII. Ultrastructural alterations in mouse epidermis caused by carcinogen administered orally. KAI SETÄLÄ, EINO ERKKI NISKANEN, LAURI MERENMIES, MAURI NYHOLM, and LEO STJERNVALL 985
Morphological evidence for the association of virus particles with the pancreatic acinar cells of the chick. ROBERT F. ZEIGEL 1011
Announcement:
Manuscripts Approved for JNCI, February 15 to March 15, 1961 1041

No. 5—MAY 1961

Observations on the influence of force breeding in mice with and without the mammary-tumor agent. JOHN J. BITTNER 1043
Enzymatic deamination of deoxyadenylic and adenylic acids by normal and cancerous rat liver tissues. SILVIO FIALA and HAROLD E. KASINSKY 1059
Mammalian chromosomes *in vitro*. XIV. Genotypic replacement in cell populations. T. C. HSU and DONALD J. MERCHANT 1075
Results of a French survey on the role of tobacco, particularly inhalation, in different cancer sites. DANIEL SCHWARTZ, ROBERT FLAMANT, JOSEPH LELLOUCH, and PIERRE F. DENOIX 1085
Myeloma globulins of plasma-cell neoplasms in inbred mice. I. Immunoelectrophoresis of serum, with rabbit antibodies prepared against microsome fractions of the neoplasms. MICHAEL POTTER and EDWARD L. KUFF 1109

Page

Sarcomatous change and maintenance of differentiation in long-term cultures of mouse mammary carcinoma. KATHERINE K. SANFORD, THELMA B. DUNN, BENTON B. WESTFALL, ANNE B. COVALESKY, LARTIUS T. DUPREE, and WILTON R. EARLE 1139
Maintenance of the mammary-tumor agent in long-term cultures of mouse mammary carcinoma. KATHERINE K. SANFORD, HOWARD B. ANDERVONT, GWENDOLYN L. HOBBS, and WILTON R. EARLE 1185
Alterations in morphology, arginase, and β-glucuronidase within a clone of mouse tumor cells *in vitro*. KATHERINE K. SANFORD, BENTON B. WESTFALL, ERNEST H. Y. CHU, EDWARD L. KUFF, ANNE B. COVALESKY, LARTIUS T. DUPREE, GWENDOLYN L. HOBBS, and WILTON R. EARLE 1193
Some ultrastructural characteristics of a series of primary and transplanted plasma-cell tumors of the mouse. ALBERT J. DALTON, MICHAEL POTTER, and RUTH M. MERWIN 1221
"Hybrid" type cells in combined cultures of two different mammalian cell strains. G. BARSKI, S. SORIEUL, and FR. CORNEFERT 1269
Announcements:
Gordon Research Conference 1293
NCI Monograph No. 5 1293
Manuscripts Approved for JNCI, March 15 to April 15, 1961 1293

No. 6—JUNE 1961

Pathogenicity of Rous sarcoma virus for rats and rabbits. L. A. ZILBER 1295
On the interaction between tumor viruses and cells: A virogenetic concept of tumorigenesis. L. A. ZILBER 1311
Triadic labeling with I^{130}, I^{131}, and I^{133} for controlled determinations of tumor-localizing antibodies. EUGENE D. DAY, JAKOB A. PLANINSEK, and DAVID PRESSMAN 1321
Synergism between small doses of total-body and local X radiation to transplanted mouse tumors. MELVIN R. SIKOV and JAMES E. LOFSTROM 1335
A and B antigens of tumors arising from urinary epithelium. H. E. M. KAY and D. M. WALLACE 1349
Host factors in cell culture: Further studies on the growth-controlling action of fresh human serum. ERKKI SAXÉN and KARI PENTTINEN 1367
A spontaneous metastasizing fibrosarcoma in the golden hamster (*Mesocricetus auratus*) with some observations on tumor recurrence and metastasis after transplantation. MICHAEL KLEIN 1381
Histology of sex-specific graft rejection. E. J. EICHWALD and E. C. LUSTGRAAF. 1395
Clone strains of pig kidney cells with drug resistance and chromosomal markers. MORGAN HARRIS and FRANK H. RUDDLE 1405
Chromosomes of tumor cells. II. Effect of various liver carcinogens on mitosis of hepatic cells. M. M. MAINI and H. F. STICH 1413
Observations on inclusion bodies in normal and pathologic mucosa of the colon in man. BENITO MONIS and ALBERT I. MENDELOFF 1429
Epithelial and stromal roles in carcinogenesis. II. Tumor development in internal transplants of skin and epithelium treated with 3-methylcholanthrene. CHARLES A. ASHLEY 1445
Carcinogenic activity of analogues of *p*-dimethylaminoazobenzene. IV. Activity of the quinoline analogues. ELLIS V. BROWN, ROBERT M. NOVACK, and ALI A. HAMDAN 1461
Acknowledgment 1465
Index of authors 1468
Index of subjects 1471
Announcements:
VIII International Cancer Congress 1477
Manuscripts Approved for JNCI, April 15 to May 15, 1961 1478

590632—61——2